



SHERWIN-WILLIAMS.

THE SHERWIN-WILLIAMS COMPANY
Environmental, Health & Regulatory Services
101 Prospect Avenue NW
Cleveland, Ohio 44115-1075
Facsimile: (216) 566-2730

May 24, 2007

Mr. Ray Klimcsak
United States Environmental Protection Agency
Region II
290 Broadway
New York, NY 10007-1866

RE: Sherwin-Williams Paint Works Site
Response to USEPA March 28, 2007 Comments
on "Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan for the
Paint Works Property, Gibbsboro, New Jersey" (September 21, 2006)
and Revised Paint Works Vapor Intrusion Work Plan

Dear Mr. Klimcsak:

The Sherwin-Williams Co. (Sherwin-Williams) has received the United States Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (NJDEP) comments on the September 21, 2006 "Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan for the Paint Works Property, Gibbsboro, New Jersey" (Paint Works VI Work Plan). This letter provides Sherwin-Williams' response to those comments.

The Sherwin-Williams Company (Sherwin-Williams) has been performing a comprehensive Remedial Investigation/Feasibility Study (RI/FS) of several sites in Gibbsboro pursuant to Administrative Order on Consent (AOC) No. 02-99-2035, issued by the United States Environmental Protection Agency (EPA) Region II New Jersey Remediation Branch, dated 30 September 1999. The RI/FS is being conducted pursuant to the approved "Revised Work Plan for RI/FS Activities, Gibbsboro, New Jersey"; Weston, 2003), and subsequent amendments to that work plan, which were also approved by the EPA. Sherwin-Williams received on March 29, 2007, a letter from the EPA Region II New Jersey Remediation Branch incorporating the Paint Works into the ongoing RI/FS and requesting a Supplemental Work Plan for the Paint Works.

In response to this request from EPA, on May 11, 2007, Sherwin-Williams submitted the "Supplemental Remedial Investigation Work Plan for the Paint Works, Gibbsboro, New Jersey" (Supplemental RI Work Plan). Sherwin-Williams has therefore concluded that all activities being conducted at the Paint Works are now to be conducted pursuant to AOC No. 02-99-2035 and the Approved Work Plan. As a result, only supplements to



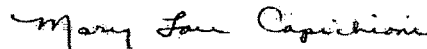
the Quality Assurance Project Plan (QAPP) and Sampling and Analysis Plan (SAP) applicable to the proposed scope of work for the VI evaluation are provided within the attached "Revised Paint Works VI Work Plan".

The response to the EPA comments is organized as were the original comments: General, Tables, Figures, Ground Water Data, Indoor Air Data and Quality Control/Quality Assurance. The "Revised Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan for the Paint Works Property, Gibbsboro, New Jersey", which is attached, has been revised to reflect Sherwin-Williams' response to EPA's comments.

The September 21, 2006 Paint Works VI Work Plan was submitted prior to the submission of either the "Comprehensive Paint Works Remedial Investigation Report, Paint Works (Comprehensive Paint Works RIR)" or the "Supplemental Paint Works Remedial Investigation Work Plan (Supplemental RI Work Plan)", both of which were submitted to the EPA Region II New Jersey Remediation Branch on May 11, 2007. Many of the EPA comments on the Paint Works VI Work Plan pertain to the understanding of site conditions provided by the historic soil and ground water data collected at the site, and the information provided in the Comprehensive Paint Works RIR provides more detailed information regarding these comments. Additionally, during the preparation of both the Comprehensive Paint Works RIR and Supplemental RI Work Plan, the terminology used to describe certain areas of the site was, in some instances, revised to be consistent between documents. These revisions in terminology have been incorporated into the attached "Revised Paint Works VI Work Plan".

We hope that the addition of the information from the RIR and Supplemental Paint Works Work Plan will facilitate your review of this Revised VI Work Plan, and that the modifications to the latter will not be confusing. However, should you have any questions or comments regarding any of the contents of the Revised VI Work Plan or the comment responses, please do not hesitate to contact me at 216-566-1794 or via e-mail at mlcapichioni@sherwin.com. We are also available at your convenience, should you wish to have a meeting to facilitate your review and the subsequent implementation of this program.

Sincerely,



Mary Lou Capichioni
Director, Remediation Services

Enclosures

cc: J. Doyon, NJDEP, w/ encl. (4 copies)
J. Josephson, USEPA-Reg.2
L. Arabia, TetraTech FW, Inc. (1 copy)
J. Gerulis, Sherwin-Williams
A. Danzig, Sherwin-Williams
S. Peticolas, Gibbons P.C.

EPA COMMENTS:

Comment Summary

The SWC Vapor Intrusion Sampling Plan (VISP) includes a summary of the previous ground water, soil gas, and soil data (both confirmatory and screening) collected in 2003. Based on this data, SWC has presented a proposal for future vapor intrusion (VI) sampling. EPA, in an effort to simplify the presentation of comments, is categorizing the comments in the following sub-headings: General, Tables, Figures, Ground Water Data, Soil Data, Indoor Air Data, and Quality Control/Quality Assurance (QA/QC). Other comments, which would have been similar to those made by the NJDEP, are not included for duplicity sake; therefore, NJDEP's comments are enclosed in their entirety, separately.

General Comments

1. Residential and commercial structures are present in close proximity to the delineated area (i.e., extent of contamination depicted by SWC) in Figures 9 and 10. Based on the current "yellow line" in Figure 10 (approximate extent of benzene exceedances within ground water), EPA is requesting that additional homes/businesses be added to the study on U.S. Avenue and Berlin Road. That would include: 10, 14, 19, and 25 U.S. Avenue, 41 Berlin Road (and at least one house east of it), 7 and 10 Foster Avenue.

Additional rationale for the selection of several of these residential structures is present in the fact that the following ground water monitoring wells (located within the U.S. Avenue Burn Site) exhibited benzene exceedances during the 2005 sampling program (located just down-gradient from 25 U.S. Avenue): MW-7, MW-9, BSMW0002, and BSMW0003. Finally, based upon the results of this phase of sub-slab sampling, EPA may require additional sub-slab sampling.

Response: Sherwin-Williams will add the following properties to the sub-slab sampling program:

- ***10, 14, and 19 U.S. Avenue***
- ***41 and 45 Berlin Road***
- ***7 Foster Avenue***

Sherwin-Williams is not at this time proposing the addition of 25 U.S. Avenue or 10 Foster Avenue. Sherwin-Williams has on numerous occasions attempted to obtain access to 25 U.S. Avenue and has, in each instance, been denied. EPA has also attempted to obtain access for potable well sampling, without success. Therefore, it is highly likely that the property owner will not grant access to Sherwin-Williams to perform the VI sampling. If EPA wishes to try and obtain access and is successful, Sherwin-Williams will conduct the VI sampling. 10 Foster Avenue is located to the west of the underground culvert connecting

Silver Lake with Hilliard Creek, which is well beyond the area where either residual LNAPL or dissolved-phase benzene concentrations have been detected, and therefore there is no reason to believe (no evidence to support) that this property would be affected. Additional information regarding the free product delineation activities is provided in response to Comment No.1 of the Soil Comments.

A map of all properties referenced as Figure 4-1, and a revised Table 7 (now referenced as Table 4-2) is included in the Revised Paint Works VI Work Plan.

2. Page 1 of the Work Plan cites specific (tax parcel) Block's and Lot's, please submit a map of the referenced information.

Response: The requested information is provided on Figure 1-2 (included with the Revised Paint Works VI Work Plan).

3. There are several references within the Work Plan (pages 2 and 4) to the fact that remedial actions have been performed to address historical discharges. It should be noted that remedial actions performed by a potentially responsible party (PRP) for EPA would require that it be under a Consent Decree or a Unilateral Administrative Order. Please clarify the authority, under which these response actions were performed.

Response: Prior to Sherwin-Williams undertaking investigation and remedial actions at the property, a former owner, Scarborough, conducted several response actions under the authority of the NJDEP. These actions are described in the Comprehensive Paint Works RIR.

Sherwin-Williams conducted several investigations and response actions pursuant to NJDEP orders. The dates of these orders are summarized below.

NJDEP REGULATORY ORDER SUMMARY

Title/Number	Subject	Date Signed	Status
Administrative Consent Order	Wastewater Treatment Lagoons	17 August 1978	Executed
Administrative Consent Order	Petroleum Seep	20 September 1990	Executed
Amendment to 20 September 1990 Administrative Consent Order	Additional RI requirements for Plant Site (Foster Ave.), Lagoon and Landfill Areas	30 October 1990	Executed
Directive and Notice to Insurers	Seep Area (Paint Works)	16 November 1994	Executed
Amendment to 30 October 1990 Administrative Consent Order	Scope of remediation for free product	18 October 1995	Executed

NOTE: NJDEP terminated the 1990 ACO and transferred regulatory responsibility to EPA in July 2001.

The EPA Region II Removal Action Branch initially provided regulatory and oversight guidance for the investigation of Hilliard Creek, a portion of which lies within the Paint Works. Following NJDEP's termination of the 1990 ACO in July

2001, responsibility for the Paint Works was transferred to the EPA Region II Removal Action Branch. The EPA Region II Removal Action Branch issued an Expedited Notice to Sherwin-Williams in April 2002, requiring Sherwin-Williams to take several actions in the Seep Area. The Expedited Notice was followed by a Draft AOC in December 2002, also focused on the Seep Area. The work performed by Sherwin-Williams from July 2001 to the present has been conducted under these authorities.

4. Section 4.1, page 12 - There is a reference to Section VII. Since there is no Section VII, please cite the correct text, figure, or table.

Response: The reference to Section VII was erroneous. The correct reference should have been Table 6 (now referenced as Table 4-1 in the Revised Paint Works VI Work Plan).

Comments on the Tables

1. Table 1 - Monitoring Well Depth to Ground Water Observations
 - a. According to Table 1, MW-1, MW-11, MW-22, and MW-24 were the only wells to have been recorded as exhibiting product or a sheen during the 2003 sampling program; however, there is no data presented for any of these wells in the subsequent tables, figures, and/or text. Please justify the rationale for why these wells were not sampled and the data not presented, and if samples were collected please present the data.

Response: MW-1, MW-11, MW-22 and MW-24 were not sampled because they contained free product. Measurements for free-phase product were collected using an oil/water interface probe in three events (July 2003, March 2004 and August 2004) to help delineate areas of liquid-phase free product. Product thicknesses were generally low, ranging from a sheen to approximately 1.5 feet in MW-1 (March 2004). It should be noted that the measured product thickness in August 2004 in MW-1 was only 0.02 foot.

Measurable product was consistently observed in only the former Building 67 Seep Area (WP-1, WP-5 and WP-14), the former gasoline station area (WP-9) and in the former Tank Farm A area, north of the 1 Foster Avenue building (MW-1, MW-12). Included with this letter is a figure summarizing the free product measurements conducted during July 2003, March 2004 and August 2004. This figure is now referenced as Figure 3-1 in the Revised Paint Works VI Work Plan.

A small amount (0.04 foot) of free product was observed in MW-24, located in the northern portion of the property, during the July 2003 monitoring event. Free product was not observed in this location in any other monitoring event.

- b. MW-22 (which is 33 ft. deep and depth to water - 6.05 ft.) is reported to have a sheen, yet MW-21 (which is 14 ft. deep and depth to water - 5.58 ft.) does not. The wells are located directly adjacent to one another. Please provide an explanation as to how a deeper well can exhibit a sheen when the shallow well in the cluster does not. Especially in light of your characterization of the plume as petroleum or mineral spirits, both of which are Light Non-aqueous Phase Liquids (LNAPLs).

Response: *The results reported were those observed in the field. Although contrary to what would be predicted, these were the results. The reason(s) for the observation would be only speculation. Free product was not found in either MW-21 or MW-22 during subsequent gauging events conducted in March and August 2004 although a product odor was noted on the probe in MW-22 during both events.*

2. The text states that several constituents were detected in the indoor air during the sampling event that was conducted in Building 50 and 67. The results of the indoor air samples collected are presented in Table 4. The table being referred to in the text does not include method detection limits. Please submit a revised table to the reviewed which includes method detection limits and compare the data to the Region 3's RBCs.

Response: *A revised Table 4 (now referenced as Table 2-6) is included in the Revised Paint Works VI Work Plan. Note that the original Table 4 included in the September 21, 2006 Paint Works VI Work Plan was the table initially submitted to the EPA Region II Removal Action Branch and was provided to the EPA Region II New Jersey Remediation Branch for informational purposes only.*

The analytical results for the Indoor Air Sampling event are also included in revised Paint Works VI Work Plan as Appendix B.

3. Table 6 should be revised to include all constituents on the (analytical method) TO-15 analyte list and the correct screening criteria (Region 3 RBCs) should be included.

Response: *A revised Table 6 (now referenced as Table 4-1) is included in the Revised Paint Works VI Work Plan.*

Comments on Figures

1. Previous comments made by the EPA hydrogeologist during meetings have not been incorporated during the contouring of the potentiometric maps (i.e., Figures 4 and 5). As a general rule of science, the ground water elevation is defined by the topography at surface water bodies (including seeps). For example, if the lake maintains an elevation of 91 feet above mean sea level (amsl), then the 91-foot potentiometric line runs around the shoreline. Currently the figures depict

that the 90, 91, and 92 -foot contours all intersect Silver Lake. Another example of this is in the area of White Sands Branch. Currently the shallow, unconfined water table is shown as being contoured above the surface topography over this entire area. Finally, a closer review of several figures indicate that (within the areas in to the south of the site) ground water contours are above the surface elevations (i.e., Figure 4) - which is not scientifically possible. Please re-contour these maps and incorporate both monitoring well and surface water potentiometric information. This is of importance since this information is used to predict flow directions, future monitoring well locations, and VI potential.

In addition, it is common practice to post the values upon which a contour map is based. In the case of Figures 4 and 5, there were data points that were not honored in the contorting. Elimination of these points has considerable impact upon assumed ground water flow directions, future monitoring well locations, and VI potential.

Response: Revised Figures 4 and 5, now referenced as Figures 2-1 and 2-2, are included in the Revised Paint Works VI Work Plan. These figures depict the ground water flow direction in the shallow Kirkwood-Cohansey formation and the deep Vincentown formation, respectively. The water levels in the individual wells are shown, and the surface water elevations, if known at the time of sampling, have been utilized.

2. Figure 4, Shallow Ground Water

- a. Data at MW -21 was not incorporated during the contouring process.

Response: During the July 2003 field activities, the sampling team inspected MW-21 and found it to possibly be damaged. Therefore, it was not used for the purpose of contouring ground water flow direction.

- b. Many ground water contours are at higher elevations than the surface topography. This may be primarily due to the fact that the author did not consider surface water elevations to be equivalent to ground water elevations.

Response: Revised Figure 4, now referenced as Figure 2-1 (included in the Revised Paint Works VI Work Plan), has incorporated surface water elevations, where known when the ground water elevation data were collected. Where ground water elevations were extrapolated to areas in which neither ground water nor surface water elevations were obtained, such as the White Sands Branch area noted by the EPA, the extrapolated contours have been eliminated.

- c. Contour values are not posted.

Response: *It is assumed this comment refers to the water level measurements for each well. Revised Figure 4, now referenced as Figure 2-1 (included in the Revised Paint Works VI Work Plan), includes the water levels measurements used to generate the contours.*

- d. Both shallow and deep wells are posted in the same way, making it difficult to discern which is being used to create the contours.

Response: *Figure 4, now referenced as Figure 2-1 (included in the Revised Paint Works VI Work Plan), has been revised to show only those wells installed in the shallow Kirkwood-Cohansey formation that were used for the contouring. Also, the water levels elevations for each well used to generate the contours are presented, providing further information regarding which wells were used.*

- e. Silver Lake, which is at an elevation of approximately 91 feet amsl; has three different contours intersecting it: the 90, 91, and 92 foot contours. Please see Comment #1 (in this section) above.

Response: *Figure 4, now referenced as Figure 2-1 (included in the Revised Paint Works VI Work Plan), has been revised to address this comment.*

- f. MW-1 and MW-22, both shallow wells, are not posted on this figure.

Response: *Both MW-1 and MW-22 were found to contain free product during the 2003 sampling event. Therefore, water level measurements were not obtained from either well.*

3. Figure 5, Deep Ground Water

- a. Data at MW-37 was not incorporated during the contouring process. This creates a substantially changed flow pattern.

Response: *As presented in the Comprehensive Paint Works RIR, the geology of the site has been reevaluated, and it has been concluded that both MW-30 and MW-37 are installed in the Composite Confining Bed (CCB) separating the shallower Kirkwood-Cohansey aquifer from the deeper Vincentown formation. Since these wells are not installed in the Vincentown formation, they were not used for contouring ground water flow in that formation.*

- b. An explanation as to why there is no data presented for MW-42 should be presented. This is the farthest west deep well and is an important control point for understanding the deep ground water flow.

Response: *MW-42 could not be located during the July 2003 sampling event and, therefore, no water level measurements could be obtained. In the Supplemental RI Work Plan, Sherwin-Williams has proposed an additional comprehensive*

monitoring event. At this time, additional efforts will be made to locate MW-42 and obtain both water level and chemistry data.

- c. Contour values are not posted.

Response: Figure 5, now referenced as Figure 2-2 (included in the Revised Paint Works VI Work Plan), has been revised to include only those wells installed in the deeper Vincentown formation, and to include the water levels measured in each well and used to generate the contours.

- d. Both shallow and deep wells are posted in the same way, so that it is difficult to interpret which is being used to create the contours.

Response: See response to Comment 3.c, above.

4. Figure 9 - Ground Water Analytical Results Exceedances Only - Shallow Wells

- a. Please justify the rationale for leaving MW-1 out of the "free product" area when it exhibited 1.64 feet of product thickness in the last sampling.

Response: Figure 9 has been revised to eliminate the interpreted "free product area" designations. These areas have been replaced with the product measurements observed in each well during the product gauging activities from 2003 and 2004. A new figure that is referenced as Figure 3-1 is included in the Revised Paint Works VI Work Plan.

- b. Please present the technical principles used to create the "oval areas" depicted in this figure. One area is elongated in the direction of ground water flow (although MW-1 was left out). The other area is elongated in a direction away from the houses, but in a direction contrary to ground water flow.

Response: See response to comment 4.a.

- c. The color-code designations for benzene and PCP exceedances in shallow ground water in Figure 9 appear to be incorrect at a number of locations. The designations noted within the map "key" for benzene and PCP most probably should be switched.

Response: The comment is correct. Figure 9 has been revised and replaced with a new figure that is referenced as Figure 3-1 (included in the Revised Paint Works VI Work Plan).

5. Figure 10 - Approximate Extent of Benzene Exceedances - Shallow Wells

- a. EPA does not agree with the data interpretation regarding the approximate extent of benzene exceedances. Most analyses did not achieve an acceptable detection limit to precisely define the potential extent. Review of the data presented in Table 2 indicates that the detection limit for benzene is frequently reported as 10 parts per billion (ppb) or 50 ppb, well over the action level of 1 ppb for benzene. Further inspection of data available on the Weston TeamLink Web-site indicates that there are many benzene-related TICs with high concentrations, present at the site. A closer inspection of the data available on the TeamLink Web site for WP-13 raises other questions, discussed here rather than in other comment subsections. Two results are provided for pentachlorophenol, both collected on the same date, therefore, indicating that it was the same sample. One result is for 0.098 ppb (as is the detection limit and is the sample presented within Table 2), while the other sample had a detection limit of 250 ppb, yet this result is not provided in the VISP. Although this was one random sample selected by EPA for review of comparison TeamLink data, this raises serious concerns for potential error (and raises the scrutiny of all other data) for the remaining ground water data. An explanation of this discrepancy must be provided.

Response: Sherwin-Williams acknowledges that the method detection limits for the ground water samples were greater than the screening criterion of 1 ug/l, as noted by the EPA Region II New Jersey Remediation Branch. Sherwin-Williams does not agree, however, that the elevated MDLs in those samples have compromised the ability to use those data as a basis to conclude that the extent of dissolved-phase benzene is as presented.

Where the MDL was the 50 ug/l cited in the comments (MW-12, MW-13R, MW-26), the location is within the area designated as the general extent of benzene at concentrations greater than 1 ug/l. The one exception to this is MW-27, located in the former gasoline station area, where it is possible that benzene could be present at a concentration greater than 1 ug/l.

In the other locations, where the MDL was 10 ug/l, benzene concentrations well below 10 ug/l were regularly reported as "estimated", with a "J" flag. For example, benzene was reported at 2 ug/l, with a "J" flag in MW-14, 5 ug/l, with a "J" flag, in MW-20, and at 0.7 ug/l, again with a "J" flag, in MW-29.

Estimated concentrations for other analytes that were significantly below their respective MDLs were also reported. For example, in MW-27, cited above, cyclohexane (5 ug/l J) and toluene (6 ug/l J) were both reported at an estimated concentration approximately 1/10th of the MDL.

Sherwin-Williams understands the objective of the EPA that the analytical detection limits not obscure relevant data. Although the elevated MDLs, which generally result from the presence of the volatile TICs, are not optimum, the

locations with the highest MDLs are, with the exception of MW-27, within the area already designated as possibly containing benzene at concentrations greater than 1 ug/l. Where the MDLs are less elevated, estimated concentrations qualified with J flags are regularly reported at levels 1/10th of the MDL. Therefore, Sherwin-Williams concludes that, although the elevated MDLs are not desirable, they have not materially affected the usability of the results.

Pentachloropneonol (PCP) is normally analyzed as a semivolatile organic compound (SVOC) with a quantitation limit of 25 ug/L using CLP SOW OLM04.2, as prescribed for this project. The MDL for the analysis of PCP using CLP SOW OLM04.2 was 250 ug/l, as stated in the comment. However, the NJDEP ground water quality standard (GWQS) for pentachlorophenol is 0.3 ug/L. Therefore, Sherwin-Williams reanalyzed the sample for PCP as an herbicide using SW-846 Method 8151A, which yielded a reporting limit of 0.098 ug/L. Because two analyses were conducted, two sets of results – with differing detection limits - were reported in Table 2. It should be noted that both samples were reported as ND for PCP.

- b. It was also noted, after review of the data available on TeamLink, that there were samples (labeled as monitoring well samples) collected in 2002; however, not always for full TCL. One such sample result was for MW -13R which was collected on 4/10/2002 and analyzed for degraded mineral spirits. The result was 1,000,000 mg/kg (presumably a soil sample); however, a discussion of these prior results should have been discussed in the VISP.

Response: The results cited in this comment were not a soil sample, as reported on Team Link, but rather a product sample. This was determined during preparation of the "Comprehensive Paint Works RIR", and is reported in that document. Subsequent sampling of MW-13R has not found measurable free product, although it does contain elevated dissolved-phase benzene concentrations.

There has been almost 20 years of data collection at the Paint Works, as reported in the Comprehensive Paint Works RIR; Sherwin-Williams attempted to provide in the Paint Works VI Work Plan data that were current and applicable to the vapor intrusion investigation. Since MW-13R was found to contain benzene at concentrations well above the 1 ug/l screening criterion, it was believed that reporting and incorporating this result into the work plan was sufficient.

6. Section 2.2, page 8 appears to incorrectly reference Figure 9 with respect to the results of the confirmatory soil sampling program. The reference should be to Figure 8.

Response: The comment is correct, and the reference has been corrected. Figure 8 is now referenced as Figure 2-5 in the Revised Paint Works VI Work Plan.

7. Section 3.1 appears to incorrectly reference Figure 10 with respect to the presence of residual/free product. The reference should be to Figure 9. Figure 10 relates to the areal extent of benzene ground water exceedances.

Response: *The comment is correct, and the reference has been corrected. Figure 9 has been revised and replaced with a new figure that is referenced as Figure 3-1 (included in the Revised Paint Works VI Work Plan).*

8. Section 3.2 references Figure 11; however, there was no such figure submitted. Please include Figure 11, which depicts the sampling locations. In addition, it appears that the last paragraph on page 11 incorrectly references Figure 11, when it should be Figure 10.

Response: *Sherwin-Williams does not own any of the buildings for which the sub-slab sampling is proposed and requires access from each property owner and, in some instances, tenant, in order to perform even a building survey in order to identify possible sampling locations. It has been Sherwin-Williams' intention to request access from the property owners and/or tenants when approval of the work plan is received. At that time, building surveys will be conducted to identify sampling locations. Therefore, it is not possible at this time to provide the EPA Region II New Jersey Remediation Branch with a figure showing all sample locations.*

The comment regarding the reference to Figure 11 is correct. This figure is now referenced as Figure 4-1 in the Revised Paint Works VI Work Plan. Figure 4-1 provides the structures proposed for sub-slab soil gas and indoor air quality sampling.

Ground Water Data Comments

1. All future submittals summarizing ground water sampling work should include a table for monitoring well information. This would include information; such as, well depths, screened intervals, surface elevation, etc. This is important information for interpreting these results, and it should be readily available.

Response: *A revised Table 2-1 providing the information requested is included in the Revised Paint Works VI Work Plan.*

2. It is stated that SWC will utilize EPA Region 9 risk-based concentrations (RBCs) in order to assess the 2003 ground water data for its potential for vapor intrusion. Using these values, the ground water concentration for benzene is 1.0 ppb. Reviewing the 2003 ground water data within Table 2 it is apparent that the detection limits for benzene were too high (i.e., 10 ppb and at times 50 ppb), therefore making it difficult to assess the proposed VI sampling locations

presented by SWC (discussed later). In the future, all rounds of ground water sampling must have low detection limits, through the use of a low-concentration analytical method. In addition, the VOC compound list should include: 1,4 dioxane, bromochloromethane, and 1,2, 3 Trichlorobenzene.

Response: *Sherwin-Williams acknowledges that the MDLs for many of the ground water samples were elevated. However, this was not due to an inability of the laboratory method to achieve a lower detection limit. Sherwin-Williams used the analytic methods in the Approved Work Plan, but interference from the volatile TICs in several of the samples resulted in elevated MDLs. Sherwin-Williams will work with its laboratory subcontractors in an attempt to reduce the MDLs to the extent possible in future ground water sampling events, but the analytical methods being used by the laboratories are those that have been approved by the EPA Region II Remediation Branch, and any change in analytical methods will require a revision to the Approved Work Plan, and will affect all ground water sampling being conducted for the Gibbsboro RI/FS.*

Sherwin-Williams is willing to consider other methods, but it should be noted that changing analytical methodologies may result in a lack of comparability between historic and prospective results. Again, however, it is not that the analytical methodologies are incapable of achieving the lower MDLs, rather it is interference from the volatile TICs, and it is likely that any other analytical method will also face issues resulting from interference with the volatile TICs.

3. Section 4.2, page 16 - EPA agrees that there should be a monitoring well installed in this general location, because there are pentachlorophenol (PCP) detections in wells directly downgradient (deeper ground water).

Response: *Sherwin-Williams does not agree that additional ground water investigation is now needed for purposes of the VI study. The additional ground water investigation proposed for these two locations was intended to supplement the understanding of shallow ground water conditions in these specific locations prior to undertaking the sub-slab sampling program. It was believed that this sequential approach was most consistent with EPA guidance in evaluating sites for VI investigations. However, the EPA Region II New Jersey Remediation Branch has, in the first comment on the VI Work Plan, bypassed the proposed ground water investigation in favor of the sub-slab sampling program, and Sherwin-Williams has agreed to perform the sub-slab sampling at 19 U.S. Avenue, and will also perform that sub-slab sampling at 25 U.S. Avenue if the EPA Region II New Jersey Remediation Branch can obtain access from the property owner.*

If the EPA is suggesting that monitor wells should be installed, from a specific data need for understanding ground water conditions, then this should be a subject of discussion regarding the overall ground water program for the Sherwin-Williams Gibbsboro sites.

Soil Data Comments

1. There are numerous statements within the VISP text or references to the associated figures, which state or imply that the extent of product-impacted soil has been delineated. To summarize, the soil screening and sampling program employed by SWC consisted of 162 soil screening locations, of those, 19 soil sampling borings were installed. The confirmatory soil sampling program was biased towards those screening locations which showed obvious signs of contamination; however, 7 out of the 19 locations were "clean" according to Figure 7 (which would have an impact on the statement made on Page 10, "benzene was found in only three of eighteen locations"). In addition, the text states that the actual soil sample "intervals" would be collected at the soil/water interface; however, when comparing the depth-to-water readings from monitoring wells within the adjacent areas (utilizing the provided figures and Table 1), this was not always the case. According to Table 3A, some core sections (intervals) were not analyzed at all, while others had unusually high detection limits for results (i.e., 28 mg/kg, 30, 32, 59, 61, 64, 82, 150 mg/kg).

Combined, all of these facts add up to inconsistencies within the confirmatory soil sampling program, not to mention that there is no additional information provided as to which (soil) intervals were screened (and what screening method was utilized) prior to the selection of confirmatory soil sampling intervals. Finally, it is apparent after reviewing Figure 7 that the extent of residual product within soil is not delineated. This is true for the following areas: 1) the area north of sample FPBKG (which according to Table 3A, was not analyzed at all, other than for TOC), but according to screening results - there were many hits; 2) all areas to the east (running north and south) along U.S. Avenue; and 3) again, without information as to the intervals screened (that were clean) it is difficult to interpret whether the screening program adequately delineated the extent of residual soil contamination.

Response: A summary of the Soil Screening and Confirmatory Soil Sampling Program is included in the Revised Paint Works VI Work Plan as Table 2-3. Additional discussion regarding this program was recently submitted to the EPA Region II New Jersey Remediation Branch in the Comprehensive Paint Works RIR. It is understandable that, without these data, it is difficult to conclude that the extent of the residual product has been adequately delineated.

2. Within Section 3.1 it is stated that the free product is a "weathered mineral spirit", as well as the fact that Figure 8 presents the results for many Tentatively Identified Compounds (TICs). EPA is requesting that the chromatograms for these results be submitted for review.

Response: The chromatograms from the Confirmatory Soil Sampling program were included in the Paint Works Comprehensive RIR (Appendix V) and are included in Appendix A in the Revised Paint Works VI Work Plan.

Indoor Air Data Comments

1. Section 2.0, page 5 - The statement that indoor air sampling results were inconclusive regarding the sources of the constituents should be clarified. This statement contradicts all later text which states that the extent of residual product in soil (which would imply the high concentrations of TICs) and contamination in ground water (both shallow and deep) have been defined.

Response: Table 6-7 in the Comprehensive Paint Works RIR presents an inventory of potential activities conducted and substances stored in each of the locations in which indoor sampling was conducted. These included, among other things, gasoline-operated power equipment, which presumably contained gasoline, paints, oil and adhesives. Since there were no sub-slab samples obtained, there was no basis to determine whether or to what extent the indoor air concentrations that were measured were a result of vapor intrusion, were due to ambient outdoor conditions, or resulted from the activities and/or substances in each location. This table is included as Table 2-5 in the Revised Paint Works VI Work Plan.

The subsequent statement that the nature and extent of constituents in soil and ground water have been generally defined is not relevant to the discussion of the source(s) of the constituents found in indoor air. There is a possibility that some component of the constituents found in indoor air may be associated with the constituents in soil and ground water, but that has not been established through the sampling that was previously conducted. Therefore, as stated in the Paint Works VI Work Plan, the previous indoor air sampling was inconclusive regarding the source(s) of the constituents detected in indoor air.

2. It is stated within the text that the indoor air concentrations of the constituents detected were compared to Occupational Safety and Health Administration (OSHA) permissible exposure limits (PELs). Please note, EPA does not consider OSHA PELs as a screening tool. All detected constituents in the indoor air should be compared to their respective Region 3 PRGs, with the exception of TCE and PCE. The screening criteria for TCE and PCE in indoor air are: 1 ug/m³ and 0.05 ug/mg³. Secondly, based on the review of the data available in this report, it was determined that the following constituents exceeded their respective Region 3 PRG's in Buildings 67 and 50: methylene chloride, benzene, and xylene.

Response: Sherwin-Williams understands the position of the EPA Region II New Jersey Remediation Branch regarding the use of Region 3 PRGs as indoor air screening criteria. The Paint Works VI Work Plan merely presented the results of the work that was previously performed for the EPA Region II Removal Action Branch. Sherwin-Williams proposed in the Paint Works VI Work Plan to use the Region 9 PRGs, and in this response is agreeing to use the Region 3 PRGs as screening criteria.

It is understood that concentrations of methylene chloride, benzene and xylenes exceeded the Region 3 PRGs. As discussed in response to Comment No. 1 in this section, however, it has not been established that these constituents were present as a result of vapor intrusion.

With regard to the screening criteria for TCE (1 ug/m³) and PCE (0.05 ug/m³), it is noted that the EPA vapor intrusion guidance document has cited background concentrations in urban air as high as 9 ug/m³ for TCE and 29 ug/m³ for PCE.

3. On page 11, it is stated that chlorinated solvents "have not been considered site-related" COPCs. EPA does not agree with this position. Based on the 2003 ground water sampling data, monitoring wells: 12, 14, 15, and 21, which appear to be located within the confines of the former facility, all indicate the presence of chlorinated organic compounds. A line of monitoring wells that appear to be upgradient of the former facility (MW-SCAR, MW-25, MW-27, MW-28, MW-29, and WP-13) do not contain any indication of chlorinated organic compounds at the time of sampling. In addition, methylene chloride, which is associated with paints and paint manufacturing, has been found in the indoor air and historically in the ground water. Please include methylene chloride in all future sampling matrices and Table 6.

Furthermore, it is stated that chlorinated compounds are not a concern in the soil, based in part, on their absence from any soil samples collected across the site (including the confirmatory soil sampling program). After review of Table 3a, which presents soil concentrations as mg/kg, the detection limits in many of the samples are very high (see Soil Data Comment #1, above). This is presumably due to the high levels of BTEX-related compounds and TICs raising the detection limit. This, in effect, could be masking the presence of the chlorinated compounds at levels which would be a concern for the VI study. Based on the 2003 sampling data, vinyl chloride and 1,2-DCA, both breakdown products for other chlorinated organic compounds, are present in a few monitoring wells at the Site, but not in up gradient wells.

Response: Again, Sherwin-Williams understands the EPA concern that elevated MDLs for either soil or ground water sampling could be masking the presence of one or more constituents, including chlorinated VOCs. However, as stated previously, Sherwin-Williams does not agree that the elevated MDLs have materially affected the ability to rely upon the reported results to conclude that chlorinated VOCs are not site-related constituents of potential concern.

With regard to the potential presence of chlorinated solvents in soil, there is a large body of evidence supporting a conclusion that chlorinated VOCs are not site-related constituents. There have been numerous rounds of ground water sampling conducted at the site since approximately 1990, and chlorinated VOCs have not been found with the exceptions of the vinyl chloride and 1,2-DCA noted

in the comment. If chlorinated constituents were present in soil, it can be concluded that they would also have been observed in ground water. Of the reported detections of methylene chloride, 88 percent of the detections were qualified as also being found in the laboratory method blanks, supporting a conclusion that they were a result of laboratory contamination.

In any event, Sherwin-Williams has stated its intention to use the TO-15 methodology to perform the sub-slab sampling. The TO-15 method will detect chlorinated constituents as well as the petroleum constituents Sherwin-Williams has concluded are the most likely site-related constituents. Sherwin-Williams has agreed to include all TO-15 constituents in Table 6 (now referenced as Table 4-1) in the Revised Paint Works VI Work Plan.

4. Section 4.1, page 13 - It is stated that "The levels of VOCs will be screened against levels of concern ... the values are EPA Region 9 PRGs." For screening purposes, the maximum detected concentration of constituents detected in the subslab should be compared to EPA Region 3 RBCs for ambient air, which should be adjusted by a factor of 10 (attenuation factor), with the exception of TCE and PCE. Please see Indoor Air Comment #2 above.

Response: Sherwin-Williams will screen the results of the sub-slab sampling against the Region 3 PRGs, adjusted for attenuation as appropriate.

5. Section 4.1.1, page 14 - It is stated that, "In addition to sampling the sub-slab air, at least 9 samples will be collected from outdoor air to establish ambient outdoor air concentrations of the VOCs." Please note, EPA will not use any data (at this point) collected outside the homes/buildings that are not from samples collected either sub-slab or indoor air. Also, it should be noted that in the future, it may be determined that in addition to sub-slab samples within the homes, that indoor air samples may need to be collected as well.

Response: Appendix I of the 2002 USEPA Draft Guidance for Evaluating the Vapor Intrusion Pathway states:

"A contemporaneous ambient (outdoor) air sample may be useful to include for comparison to indoor concentrations and aid in characterizing possible background contribution from ambient (outdoor) air."

It is difficult to understand why the EPA Region II New Jersey Remediation Branch would not wish to understand fully the potential sources of any constituents that may be found. The Paint Works is a business center with both auto and truck traffic. Since benzene is a key constituent in this investigation, background concentrations of this constituent, emitted by mobile sources, would seem to be important.

Quality Assurance/Quality Control (QA/QC) Comments

The Work Plan did not provide any specific information on QA/QC requirements for the project. Information such as total number of samples along with any QC samples, the laboratory requirements, sampling procedures, data verification, validation process, and data acceptance requirements were not included. In addition, it was not clearly indicated if a Quality Assurance Project Plan (QAPP) will be submitted at a later date for this purpose. It should be noted that EPA Region 2 has implemented the Uniform Federal Policy for QAPPs (UFP-QAPP) for documenting the assessment, evaluation, and usage of the data generation component of a project. The implementation of the UFP-QAPP ensures that documentation of the required QA/QC activities for environmental data generation are satisfied and should be used. The UFP-QAPP policy and associated guidance documents can be found at the following Web-site: <http://www.epa.gov/swerffrr/documents/qualityassurance.htm> and are consistent with EPA Requirements for Quality Assurance Project Plans (QAIR-S, EPA 240-B-OI-003).

Response: A combined SAP and QAPP (in UFP QAPP format) for the project is included in the Revised Paint Works VI Work Plan and may be found in Appendix E.

NJDEP COMMENTS

Deficiency:

1. Sherwin-Williams failed to provide a detailed schedule of the activities, in accordance with N.J.A.C. 7:26E-4.2(b)1 within the Work Plan.

Corrective Action:

A schedule in accordance with N.J.A.C. 7:26E-4.2(b)1 is to be submitted with a revised work plan.

Response: A project schedule may be found in Section 6.0 in the Revised Paint Works VI Work Plan.

Deficiency:

2. Pursuant to N.J.A.C. 7:26E-4.2(b)3i-ii, Sherwin-Williams failed to provide historical information, more specifically, the indoor air sampling results data presentation in Table 4 indicates numerous exceedances of NJDEP residential criteria for benzene. However, there is no figure provided to identify the locations of elevated vapor readings. It is not possible to properly evaluate this data without a figure that shows the corresponding sampling locations.

Corrective Action:

Sherwin-Williams is to provide a Figure indicating the locations of the indoor air samples obtained during previous investigations as listed in Table 4.

Response: This figure is referenced as Figure 2-6 and is included in the Revised Paint Works VI Work Plan.

Deficiency:

3. Pursuant to N.J.A.C. 7:26E-4.2(b)7, Sherwin-Williams failed to include a map of the proposed sampling locations in the Work Plan. More specifically, on page 13, the work plan refers the reader to Figure 11 for the locations of the buildings proposed for sampling. There is no figure 11 provided in the document.

Corrective Action:

A figure providing the locations of the buildings proposed for sampling is to be provided in the revised plan.

Response: Sherwin-Williams does not own any of the buildings for which the sub-slab sampling is proposed and requires access from each property owner and, in some instances, tenant, in order to perform even a building survey in order to identify possible sampling locations. It has been Sherwin-Williams' intention to request access from the property owners and/or tenants when

approval of the work plan is received. At that time, building surveys will be conducted to identify sampling locations. Therefore, it is not possible at this time to provide a figure showing all sample locations. Figure 4-1 provides the structures proposed for sub-slab soil gas and indoor air quality sampling.

Deficiency:

4. Pursuant to N.J.A.C. 7:26E-4.2(b)9, Sherwin-Williams failed to provide a Quality Assurance Procedures Plan (QAPP) as part of the Work Plan.

Corrective Action:

Sherwin- Williams is to provide a QAPP that specifies a laboratory (certified by NJDEP) for all of the proposed analyses. In addition, as per the N.J.A.C. 7:26E-2.2, an Analytical Methods/Quality Assurance Summary Table is to be provided which outlines relevant information (holding times, blanks, data deliverable format etc.) for the proposed ground water and soil gas sampling program.

Response: A combined SAP and QAPP (in UFP QAPP format) for the project is included in the Revised Paint Works VI Work Plan and may be found in Appendix E.

Deficiency:

5. Pursuant to N.J.A.C. 7:26E-4.2(b)10, Sherwin-Williams failed to provide a Health and Safety (HASP) as part of the Work Plan.

Corrective Action:

Sherwin-Williams is to provide a health & safety plan as part of the work plan.

Response: A project health and safety plan is included in the Revised Paint Works VI Work Plan and may be found in Appendix D.

Deficiency:

6. Pursuant to N.J.A.C. 7:26E-4.4(h)3viii. Sherwin-Williams fails to properly evaluate subsurface utilities, basements or other structures potentially impacted by vapor hazards related to contaminated ground water. The proposed use of data from the subslab soil gas samples to determine whether or not follow-up indoor air sampling is required is not an appropriate evaluation. While the presence of elevated vapor contaminants in the sub-slab soil gas is generally a positive indicator of vapor intrusion, the reverse is not always true. Low contaminant concentrations in the subslab soil gas do not automatically imply that the vapor pathway is incomplete. There may be situations where vapors migrate laterally and do not collect under the building slab. There are a number of factors that have to be considered when utilizing the subslab data that are not indicated in the proposal.

Corrective Action:

The sampling plan evaluation protocols are to be revised in accordance with the New Jersey Department Vapor Intrusion Guidance Document to address the following:

- a) The following sub-slab conditions must be determined prior to drilling into the sub-slab: (depth to ground water, underground utilities and potential presence of a vapor barrier).
- b) Number of sample points: Sherwin Williams proposes to collect one sub-slab sample per building. NJDEP requires that Sherwin Williams evaluate the building features prior to determining the number of sub-slab samples at each location. Multiple vapor probes are usually required for multi-family residential units and commercial buildings. The number and placement of test points must be determined on a site specific basis taking into account building size and construction, subsurface structures, ground water conditions, occupied spaces, potential preferential pathways and other relevant factors that may influence the data evaluation. Multiple vapor probes are to be used at Buildings #1 and 2 Foster Avenue, 44 Berlin Road and potentially at other locations as deemed appropriate.
- c) The sampling evaluation report is to include a detailed description of the site specific conditions at each building. This shall include the type of sub-slab soil and backfill, the presence/ absence of water, the thickness of the flooring, slab depth below the surface, the general condition of the floors and walls and the presence of sumps, cleanouts and floor drains and potential preferential pathways (such as utility trenches and or openings in the basement sidewalls).
- d) NJDEP requires that ambient pressure and temperature readings be collected using portable meteorological instrumentation. Temperature and pressure readings are required for each sample location.

Response: *Sherwin-Williams does not own and has not had access to the buildings in which the proposed VI sampling is to be conducted. As a result, the recommended evaluations have not been conducted.*

Sherwin-Williams intends to evaluate each building to determine the most appropriate sampling location(s) prior to performing the investigation. Again, however, this cannot be accomplished until there is access to the buildings, and access will not be requested until such time as there is an approved work plan.

The actions recommended by the NJDEP are anticipated. Until, however, more is known regarding the buildings, decisions regarding the number and locations of samples cannot be made.

Once the building survey is completed, Sherwin-Williams proposes to prepare a technical memo detailing the results of the survey as well as proposed sampling locations within each structure. This technical memo will be submitted to the EPA Region II New Jersey Remediation Branch and the NJDEP for their review and approval.